

# Focus

# Safe Ballast Discharge

PLEASE! Follow these safe ballast discharge guidelines. Discharging ballast water and sediments in port can introduce exotic species and diseases that lead to major economic, health, and environmental problems. For example:

- Zebra mussels (introduced to the U.S. in the mid-1980s) have cost more than \$1 billion to control.
- Cholera and other bacteria and viruses can survive long-term inside ballast holding tanks. A recent study by the Smithsonian Institute found cholera in ballast water on 15 ships.
- More than 50 non-native aquatic species have been introduced to Puget Sound waters, including the European Green Crab and the Purple Varnish Clam, which threaten local shellfish growers. The experience of midwest states shows that damage from these introductions exceed millions of dollars each year.

Washington state now has a ballast water law administered by the Washington Department of Fish and Wildlife (WDFW). As of September 22, 2000, vessels must submit copies of the Coast Guard's Ballast Water Reporting Form (below) to WDFW. Vessels may not discharge ballast water into state waters with a salinity level of less than 30 parts per thousand and with viable aquatic organisms. For more information, you may visit Ecology's Web site at http://www.ecy.wa.gov/programs/spills/spills.html or contact:

> Scott Smith Aquatic Nuisance Species Director Department of Fish & Wildlife 600 Capitol Way N. Olympia, Washington 98501-1091

Phone: (360) 902-2724

E-mail: smithsss@dfw.wa.gov

Ballast Water Reports may be faxed to: (360) 902-2845

## **Basic Guidelines**

### When Loading Ballast

- Do not load ballast in shallow waters or near dredging operations. Silt may contain cysts, unwanted aquatic organisms, and diseases.
- Do not load ballast where there is a known outbreak of disease or where algal blooms occur.
- Record in the ship's log book or ballast log:
  - Amount of ballast taken
  - Dates of loading
  - Tank/hold number
  - Geographic locations of loading
  - Salinity

- Sample salinity from ballast tanks or from a supply piping tap, not from surface sea water (seawater salinity may vary significantly with depth).
- Clean anchors, cables, chain lockers, suction wells, fire main systems and other items that might retain contaminated water or sediment, when practicable.

# When Discharging Ballast

- Do not discharge ballast obtained outside Washington waters in Washington waters, unless from an open-ocean exchange.
- Exchange ballast water in deep water, preferably 2,000 meters or more.

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- When transit does not allow an exchange in depth of 2,000 meters or more, exchange 50 nautical miles or more offshore.
- If exchanging ballast by pumping and refilling tanks, all of the water in a tank should be discharged until suction is lost. Use stripping pumps or eductors, if possible.
- For the flow-through method of exchange, at least three times the tank volume should be pumped through the tank.
- As near mid-ocean as practicable, flush ballast tanks, chain lockers, and other locations where silt may accumulate, to dislodge, remove and dispose of sediment.
- If ballast is suspected of containing sediment, flush the tank more than once before refilling or entering port. Ideally, strip and refill as opposed to purging.
- If in doubt about sediment disposal in port, you may call Ecology's Permit Assistance Center at (360) 407-7037.

# **Safety Measures**

- Maintain stability of the vessel at all times.
- Closely monitor expected sea conditions. Do not exceed maximum stress values.
- Do not conduct an open-ocean exchange if the safety of the vessel or crew would be jeopardized, but do report that an exchange was not feasible.
- Plan and account for: changing weather, over- or under-pressurized tanks, free-surface effects, intact stability, excessive shear forces and bending moments, torsional forces, shifting cargo, fore and aft drafts, wave-induced hull vibrations, time to complete the exchange.

#### For More Information

Request IMO Resolution A.868(20), adopted 27 November 1997, from the IMO (International Maritime Organization); 4 Albert Embankment; London, England SEI 7SR

### SAMPLE FORM

This form is required to be submitted to the U.S. Coast Guard under 33 CFR 151.2040 and to Washington Dept. of Fish & Wildlife under WAC 220-77-090.

Ballast logs are also available from your local marine or chart and publications vendor.

1. VESSEL INFORMATION				2. VOYAGE INFORMATION						3. BALLAST WATER USAGE AND CAPACITY						
Vessel Name:			Arriva	Arrival Port:						Specify Units Below (m³, MT, LT, ST)						
IMO Number:				Arrival Date:						Total Ballast Water on Board:						
Owner:			Agent							Volume		Jnits	nits No. of Tanks in Ballast			
Type:			Last F	Last Port:			Country of Last Port:									
GT:						1.				Total Ballast Water Capacity:						
Call Sign:			Next	Port:		Country of	Country of Next Port:			Volume		Units Total No. of Tanks on Ship				
Flag:		MANAGEME				Vater Tanks to										
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**U.S.** Coast Guard's Mandatory Ballast Water Reporting Form 8 ½" by 11" version available from Ecology on request.

If you have special accommodation needs, contact Mariann Cook Andrews at (360) 407-7211 (voice) or (360) 407-6006 (TDD).